CASE STUDY

Refinery Filtration Solutions

Stable, Dry Lube Oil with TURBO-TOC® Technology

KAYDON FILTRATION
Filtration Group®

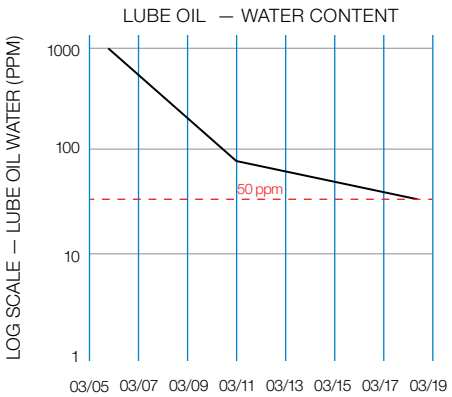
KL30S2 TURBO-TOC® system installation solved refinery turbine oil problem

A large refinery on the west coast experienced a severe water contamination problem in their lube oil used for their rotating equipment.

Local distributor responded and quickly had Kaydon send a stock KL30S2 explosion proof system to refinery. After two weeks of use, this is the response from the customer:

"WATER CONTENT (PER KARL FISCHER ANALYSIS) OF THE CIRCULATING LUBE OIL CONTINUES TO DECLINE (SEE GRAPH). WE ARE SAMPLING WEEKLY. ALTHOUGH A NUMBER OF MOVES WERE MADE TO STOP/REDUCE WATER INTRUSION INTO THE LUBE OIL, (NONE WERE SUCCESSFUL)."

"The Kaydon skid has done a good job in cleaning up the water that was remaining in the system. All samples of lube oil are clean and bright."



The KL30S2 Turbo-TOC® system was installed when water content was almost 1000 ppm. After a few days of use the system reduced water content to less than 100 ppm.

Samples were taken from inlet sample port, so the oil cleanliness level was representative of the level of contamination in the reservoir, which is the oil being sent to the rotating equipment. Oil quality measured from outlet of a oil conditioning system adds no value since this oil will be mixed with the reservoir oil.

Most refineries use vacuum distillation systems or air stripping systems for removal of water from turbine oil, but Kaydon Coalescing Technology™ proves it is the best method for oil conditioning.

BENEFITS

- **Longer Turbine Life**
  Using the Kaydon Turbo-Toc® will keep the oil system flushed and harmful contaminates removed. Oil reliability is increased.
- **Reduced Bearing Failures**
  When both water and particulate are brought down to acceptable levels, bearing failures will decrease or be eliminated.
- **Fewer Forced Outages**
  Contaminated oil, especially high water contamination, can potentially cause an unwanted outage. A continuous flow filtration system can quickly remove the contamination, thus preventing a forced outage.
- **Less-Costly Turbine Rebuilds**
  Clean turbine oil increases turbine dependability and helps in the reduction of repair costs that are directly associated with contaminated oil.